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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,925	03/08/2005	Johannes Marra	NL 020879	7527
24737	7590	09/08/2006	EXAMINER	
PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510			SHALLENBERGER, JULIE A	
			ART UNIT	PAPER NUMBER
			2875	

DATE MAILED: 09/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

RD

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/526,925	MARRA, JOHANNES	
	<b>Examiner</b>	<b>Art Unit</b>	
	Julie A. Shallenberger	2875	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 March 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13, 15-17 and 22 is/are rejected.
- 7) ☐ Claim(s) 14, and 18-21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                                              |                                                                                         |
|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                                  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                                         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>8/22/05</u> . | 6) <input type="checkbox"/> Other: _____                                                |

## **DETAILED ACTION**

### ***Claim Objections***

The entire specification and claims should use proper US spelling and grammar (for example: "colour" should be --color--).

Claim 1 is objected to "characterized" renders the claim indefinite.

Claim 4 is objected to because "substantially entirely" renders the claim indefinite.

Claim 5 is objected to because "preferably" renders the claim indefinite.

Claim 14 is objected to because the examiner is unsure of what "free flowing" is intended to mean.

Claim 20 is objected to because "in particular" renders the claim indefinite.

Claim 22 is objected to because there are no method of manufacturing steps.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 5, 8, and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Buelow (6,350,050).

In regard to claims 1-3, 5, and 22, Buelow teaches a lighting device comprising a light source 10, light guides 20, 22, input elements 13,14, which are parabolic in shape and restrict the angular range between 0 and 40 degrees (col.3 lines 1-25), output elements 16, 18, and diffuse reflectors 12a, 14a (disposed near the output element).

In regard to claim 8, the Buelow teaches a parabolic reflecting element that diverges (definition is to spread out in different directions) light, which the examiner reads as doing the same thing as diffusing (definition is to spread out or scatter) the light. Furthermore, the reflecting shapes are the same and their functions therefore must also be the same.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Buelow in view of Bruce (3,564,231).

Buelow teaches the invention described above, but lacks the teaching of a lens disposed by the output element.

Bruce teaches such a lens 40 (col. 3 lines 4 and 5).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the lighting device taught by Buelow with the lens taught by Bruce in order to direct the light as desired for particular applications.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Buelow in view of Wakeman (6,024,476).

Buelow teaches the invention described above, but lacks the teaching of a color filter.

Wakeman teaches a color filter in the form of a rotatable color wheel that is arranged near the output element.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the lighting device taught by Buelow with a color filter as taught by Wakeman for the purpose of enhancing the color quality of the emitted light.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Buelow and Wakeman in view of Dunn.

Buelow and Wakeman teach the inventions described above, but lack the teaching of a color wheel comprising a number of filters.

Dunn teaches a color wheel with a number of color filters (col.3 lines 27-43).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the lighting devices taught by Buelow with Wakeman's color wheel and Dunn's teaching of several color filters in order to provide more color variety and a higher quality of colored light emitted from the lighting device.

Claims 9-13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buelow in view of Ge (2003/0015957).

In regard to claims 9 and 10, Buelow teaches the invention as described above, including a diffuse light reflector comprising a light transmitting element (parabolic in shape) bounding a space and forming an inner side of the housing, but lacks the teaching of the diffuse light reflector comprising a diffuse reflective powder with MgO or  $\text{Al}_2\text{O}_3$  particles.

Ge teaches a reflective powder made of MgO or  $\text{Al}_2\text{O}_3$  particles coated on reflective surfaces.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the lighting device of Buelow with the reflective powder taught by Ge in order to enhance light emission by directing more light toward the output of the lighting device.

In regard to claim 15, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a reflective powder that does not absorb light in order to maximize the light that is reflected out of the lighting device.

In regard to claims 11-13, Buelow and Ge disclose the claimed invention expect for the specific particle sizes of the reflective powder and the spacing between the two elements being greater than 0.5mm.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the powder particle size ranging from 5 to 20  $\mu\text{m}$ ,  $\text{Al}_2\text{O}_3$  particles being between 0.5 – 3 wt %, and the spacing between the two elements being greater than 0.5 mm, since it has been held that where the general conditions of a claim

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are disclosed in prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buelow and Ge in view of Vriens (5,813,753).

Buelow and Ge teach the inventions described above, but lack the teaching of optically roughening the light transmitting element facing the light source and the powder.

Vriens teaches roughening the outer surface of a light transmitting element (col. 4 lines 8-12).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to roughen a light transmitting surface because it is a well known technique in the art for increasing the dispersion of light in lighting devices. It would also have been obvious to roughen the surfaces facing the light and the powder because they are the areas where the light is primarily being directed from.

***Allowable Subject Matter***

Claims 18-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Although Buelow teaches a light source 10, light guides 20, 22, and diffuse reflectors 12a, 14a, the prior art fails to show or teach such a device with two spaced apart elements forming an intermediate space between them, in which one element

facing towards the light source forms the light transmitting element and the diffusively reflective powder is present in the intermediate space.

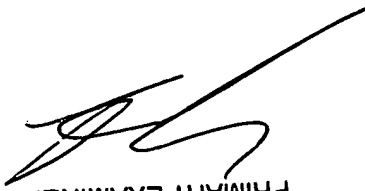
***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julie A. Shallenberger whose telephone number is (571)272-7131. The examiner can normally be reached on Monday - Friday 830-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Renee Luebke can be reached on 571-272-2009. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Julie Shallenberger  
Examiner AU 2875

  
RENEE LUEBKE  
PRIMARY EXAMINER